

## ABSTRACT

## Registration Methods and Apparatus

A method, system and computer program for generating a registered image of a body part of a patient for use in an image guided surgical procedure is described. The method includes attaching a marker detectable by a tracking system to the body part before carrying out surgical steps. The tracking system has a reference frame and the position of the marker in the reference frame is detected. A first image of the body part is captured using an imaging system. An indication of the position of the first image relative to the reference frame of the tracking system is obtained. The first image is then mapped into registration with the position of the body part. The system includes an imaging system for capturing images of the body part. A tracking system detects a marker and determines the position of the marker in the reference frame of the tracking system. A marker is attachable to the body part and detectable by the tracking system. A computer control system is configured to obtain an indication of the position of the first image relative to the reference frame of the tracking system and to map the first image into registration with the position of the body part.

(Fig 14)